

**REMARKS**

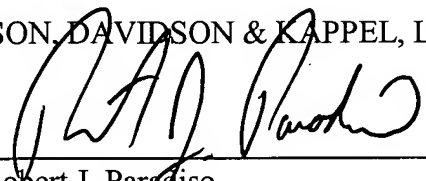
It is respectfully submitted that no new matter has been added.

Applicants believe that no fees are due as a result of this amendment. In the event of a fee discrepancy, please charge our Deposit Account No. 50-0552.

Respectfully submitted,

DAVIDSON, DAVIDSON & KAPPEL, LLC

By: \_\_\_\_\_

  
Robert J. Paradiso  
Reg. No. 41,240

Davidson, Davidson & Kappel, LLC  
485 Seventh Avenue - 14<sup>th</sup> Floor  
New York, New York 10018  
(212) 736-1940

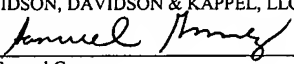
"Express Mail" mailing label no.: EL 914449332 US

Date of deposit: March 5, 2002

I hereby certify that this correspondence and/or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above in an envelope addressed to "Commissioner of Patents and Trademarks, Washington, DC 20231"

DAVIDSON, DAVIDSON & KAPPEL, LLC

BY: \_\_\_\_\_

  
Samuel Gomez

---

## Abstract

all A device for detecting different conditions of a component, such as distorted conditions, movements and loaded conditions. Said device comprises a transmitter and a receiver which are located independently on at least one component at a distance from one another and an evaluation unit. The transmitter emits an electromagnetic wave (such as e.g. a laser beam), or a focused particle beam to the receiver. The spatial resolution can be increased by multiple reflections from a mirror and a semi-transparent mirror.

---

**VERSION OF SPECIFICATION, CLAIMS AND ABSTRACT AMENDMENTS  
WITH MARKINGS TO SHOW CHANGES MADE**

IN THE SPECIFICATION:

Page 1, paragraph [0004]:

[0004] This objective is achieved according to the invention in that the transmitter emits [an] a focused or punctiform electromagnetic wave or a focused acoustic wave or a focused particle beam outside of the component towards the receiver. The result of this is that the transmitter and the receiver are effectively linked to each other via the light beam so that, for example, deformations of the component have an effect on the relative position between the transmitter and the receiver and thus also on the path of the light beam relative to the receiver. This device is suitable as a weighing device since the deformation of a component allows a conclusion to be drawn about the force acting upon it. However, other influencing variables that entail a deformation of the component such as, for example, dynamic loads or an unbalance, can also be ascertained. For such a position determination, it is also conceivable to use a pressure wave or sound wave or else a water jet.

Page 2, paragraph [0007]:

[0007] Finally, according to a preferred embodiment of the solution according to the invention, it is provided that the receiver has a light-sensitive surface such as a PSD transducer or an image processing element and the light-sensitive surface ensures a resolution of at least 3000 d to 6000 d. This value, which is common in weighing technology, is determined from the quotient of the length ratios of the maximum measurable deviation of the light beam to the light-sensitive surface and the diameter of the smallest optical unit. In this manner, the deviations of the reflected light beam relative to its starting position and thus the component deformation can be

determined on the basis of the above-mentioned resolution. Here, it must be noted that the deviation of the light beam is already enlarged by the corresponding factor due to the multiple reflection of the beam path.

Page 8, first line: --WHAT IS CLAIMED IS:-- [Claims].

IN THE ABSTRACT:

[The invention relates to a] A device for detecting different conditions of a component [(1)], such as distorted conditions, movements and loaded conditions. Said device comprises a transmitter [(2)] and a receiver [(3)] which are located independently on at least one component at a distance from one another and an evaluation unit [(4)]. The transmitter [(2)] emits an electromagnetic wave (such as e.g. a laser beam), or a focused particle beam to the receiver [(3)]. The spatial resolution can be increased by multiple reflections from a mirror and a semi-transparent mirror [(9)].